

प्रारूप-33

परियोजना का नाम :- मा० मुख्यमंत्री घोषणा सं० 71/2017 के अन्तर्गत जनपद टिहरी गढ़वाल के विधान सभा क्षेत्र देवप्रयाग के विकास खण्ड कीर्तिनगर के अन्तर्गत राड़ागाड़ से टोला तक मोटर मार्ग का नवनिर्माण कार्य (लम्बाई 6.00 कि०मी०)।

भू-वैज्ञानिक की आख्या

(प्रस्तावित स्थल की भू-वैज्ञानिक द्वारा निर्गत अद्यतन निरीक्षण आख्या प्राप्त कर संलग्न की गई है।)



अपर सहायक अभियन्ता
अ०ख० लो०नि०वि० श्रीनगर
मु० कीर्तिनगर।



सहायक अभियन्ता
अ०ख० लो०नि०वि० श्रीनगर
मु० कीर्तिनगर।



अधिशाली अभियन्ता
अ०ख० लो०नि०वि० श्रीनगर
मु० कीर्तिनगर।

कार्यालय प्रमुख अभियन्ता एवं विभागाध्यक्ष
उत्तराखण्ड लोक निर्माण विभाग,
देहरादून

भू-गर्भीय निरीक्षण आख्या ए0जी0- 184/सड़क/पुल/सम्प्रेषण/उत्तराखण्ड/गढ़वाल-2019

Geological Assessment of the alignment corridor proposed for the construction of 5.50 km (6.00 km sanctioned length) long motor road joining Radagaad to Tola, in Kirtinagar block, distt. Terhi Garhwal

04 जनवरी 2019

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Shiv Kumar Rai

04.01.2019

1- Introduction:- The Temporary Division, PWD, Kirtinagar vide G.O. No. 5221/III(2)/18-10 (एमओएलओएल/2017 T.C dated 23.10.2018 has entrusted for the construction of 6.00 km long motor road joining Radagaad to village Tola in Kirtinagar block, distt. Tehri Garhwal. The work of survey was been carried out where the actual length of the proposed motor road across the slope comes to be only ~~6.00~~ km comprising 05HP bends, in Kirtinagar block, distt. Tehri Garhwal. On the request made by Er. Vinod Negi, Executive Engineer I carried out the geological assessment of the above mentioned alignment on 05.12.2018 in the presence of Er. Lalit Gairi, Jr. Engineer, T.D. PWD, Kirtinagar.

2- Location:- The alignment corridor of this proposed motor road originates from the end point of the undercutting Bainjwadi-Radagaad motor road comprising 5HP bends in whole along its length of ~~6.00~~ km (6.00 km sanctioned length) joining village Radagaad to Tola, in Kirtinagar block, distt. Tehri Garhwal.


3- Geological Assessment:- Geologically, the proposed area falls in the Garhwal Lesser Himalayan tectonic Belt which is bounded by Main Central Thrust (MCT) in the north and Ramgarh Thrust (RT) in the south. The alignment corridors and its surrounding areas are exposed with the rocks of quartzite and slate belonging to Jaunsar Group which are thinly foliated, sheared, shattered and tectonized in nature. The rock also comprise intercalation of chlorite schist in between the bed rock. The hill slope across which the alignment passes is moderately inclined hill slope with dominant forest land and partially naap land. The nearby zone is distressed in nature as it falls very near to the active Srinagar Thrust (ST). The point of origination or starting point of the alignment is away for the approach road. Intact outcrop with thin overburden occasionally is exposed in whole along the alignment.

By and large the cross slopes of this alignment is stable and do not manifest any signatures of mass wasting.

The soils forming the ground and slopes are "Stiff" and their "Undrained shear Strength" has assessed ranging between 300 K Pa to 400 K Pa.

The quartzitic slate exposed along the alignment corridor are physically less competent and "Uniaxial Compressive Strength" has been estimated ranging between 50 M Pa to 70 M Pa.

On the basis of the geological/geotechnical studies carried at the site and the facts mentioned above the following recommendations are being made for the construction of the proposed road, failing to these this report will be automatically treated as cancelled.


SHIV KUMAR RAI
Jr. Engineer, T.D. PWD
Kirtinagar

4- Recommendations:-

1. Due to moderately steep angle of the hill slope, construct the road by half cut and half fill techniques and compact the fill material properly by dynamic compaction.
2. The hill side slopes of the entire road must be protected by suitably designed retaining walls/breast walls, this work shall be carried out simultaneously with the advancement of the road cutting. This is very important for the hill side cutting of the road.
3. The entire surface of the road from outer edge to inner edge must be sealed immediately after the excavation, this is so as to check the water infiltration into the sub soil, otherwise the slope will fail and threat the safety of the village on its lower slopes.
4. Construct extra large lined drain all along the hill side of the road and make adequate cross drainage arrangements.
5. Do not dispose the excavated waste on the lower slopes.
6. All the construction activity must be carried out as per the standard codes of practice laid by the BIS and MORTH.

5- Conclusion:- On the basis of the geological / geotechnical studies carried at the site and with the above recommendations, the site was found geologically suitable for the construction of 5.50 km long (6.00 km sanctioned length) motor road comprising 8 HP bends joining village Radagaad to Tola, in Kirtinagar block, Distt. Tehri Garhwal.



(Shiv Kumar Rai)

Astt. Geologist

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